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ABSTRACT

Materials contained in the 16 volumes that make up the Rural America Series suggest practices through which rural schools can meet local community needs and realize their potential for career program delivery. This handbook, one of five in the subset of program development process documents for the series, describes the need for and characteristics of behavioral objectives and procedures for their development and use in a comprehensive career guidance and counseling program. Procedures for coordinating the writing of program behavioral objectives are provided. These include the role of the program planning committee, the responsibilities of behavioral objective group members and their leader, and a process for developing and reviewing program behavioral objectives. A major section of the handbook consists of a programed self-instructional manual for writing behavioral objectives. (TA)

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RESEARCH AND DEVELOPMENT 118 B3

CAREER GUIDANCE, COUNSELING, PLACEMENT,
AND FOLLOW-THROUGH PROGRAM FOR RURAL SCHOOLS

Behavioral Objectives:

A Procedural and Training Guide for the Development of Behavioral Objectives for Career Guidance

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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FOREWORD

The establishment of specific objectives to accompany broad program goals is important to the success of any educational program. The development and utilization of local data-based behavioral objectives have been widely recognized as key in any effort expected to result in significant educational change. This handbook is a response to the need for direction in career guidance program planning especially at the local rural school district level. The guidelines contained in this handbook are intended for use by administrators, teachers, counselors, and other involved individuals in the rural community. They are especially important for the career guidance program Planning Committee members and the group responsible for developing behavioral objectives for the total program. The procedures, self-instructional module, and sample forms contained in the handbook should be very useful for local school personnel who are planning comprehensive career guidance programs. The self-instructional chapter within this handbook is an abridged edition of the *Career Planning Support System Manual for Writing Behavioral Objectives*, developed under contract with the National Institute of Education.

Many persons have contributed to the development of this handbook. Harry N. Drier, Project Director, initiated and coordinated the development, credibility panel review, and revision effort. Center staff who authored sections I and II of the handbook are Valija Axelrod, Mary Korfhage, and Karin S. Whitson. Appreciation is extended to Richard E. Green, Ohio State Department of Education; Wayne Hammerstrom, Wisconsin Vocational Studies Center, and Walter M. Stein, College of Education, Northern Michigan University who coordinated the credibility review process for this handbook in their respective states.

We hope that you find this handbook to be useful. Any suggestions for improvement are welcome.

Robert E. Taylor
Director

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BEHAVIORAL OBJECTIVES
FRAMEWORK FOR CAREER GUIDANCE PROGRAM DEVELOPMENT

INTRODUCTION

Behavioral objectives provide the planning framework for improving a school's career guidance program. These objectives are derived from the developmental goals which receive top priority for the career guidance program as a result of the local needs assessment. Behavioral objectives which are stated in terms of specific outcomes help clarify program developmental goals and allow them to be measured. Because they focus on specific student outcomes, behavioral objectives can provide clear direction for the implementation of new career guidance activities in the school.

Why are behavioral objectives necessary for an effective career guidance program? Behavioral objectives identify desired outcomes for various groups of people. In this career guidance program series, behavioral objectives are written primarily to direct student learning experiences. However, they should also be used when designing programs, such as staff development and community relations, for persons other than students. Without specifically stated program objectives, it is difficult to assure that program development is focused upon need-based expected outcomes and almost impossible to determine whether program goals are ever attained. Behavioral objectives provide a way to both develop programs and measure behavior in order to determine whether students or adult learners are making progress toward established goals.

Behavioral objectives in this handbook focus on individual guidance program activities. They identify a single measurable behavior which the learner is expected to exhibit upon completion of a learning experience. These characteristics differentiate behavioral objectives from the more global developmental goals. (Program goals and developmental goals are defined and discussed in the companion handbook, *Assessing Needs*.)

Organization of Handbook

This handbook is divided into sections which describe the need for and the characteristics of behavioral objectives and procedures for their development and use within comprehensive career guidance programs in rural schools. These sections are presented in the following order:

Section I—Behavioral Objectives: Description and Use

> Guidelines for writing behavioral objectives and criteria for their development and evaluation are presented. In addition, the importance of behavioral objectives to both cognitive and affective learning experiences is discussed.

Section II—Procedures for Coordinating Career Guidance Program Behavioral Objectives

The procedures suggest (1) the role of the program Planning Committee, (2) the responsibilities of behavioral objective group members and leader, and (3) a process for developing and reviewing behavioral objectives for the total program.

Section III—Self-Instructional Manual for Writing Behavioral Objectives

A self-instructional module which provides the reader an opportunity to learn the essential skills for writing behavioral objectives is presented. This manual is an abridged version of the *Manual for Writing Behavioral Objectives* developed for Operation Guidance, the procedural system element of *C*areer *P*lanning *S*upport *S*ystem. CPSS is being developed by The Center for Vocational Education, The Ohio State University, and sponsored by the National Institute of Education.

Intended Use

Behavioral objectives provide a foundation for planning learning activities and, therefore, are central to career guidance program development. The development of behavioral objectives is one of the interrelated aspects of comprehensive program planning. This handbook is one of an integrated series of handbooks designed for rural school personnel interested in the development, implementation, and evaluation of a comprehensive career guidance program for their districts. This series illustrates a unified approach for implementing career guidance in the rural school. As such, the handbooks are best used as a total package. However, this handbook can be effectively used by itself for a variety of educational purposes.

This handbook is designed for administrators, teachers, counselors, and other interested individuals in the rural school and community. Through its use, they can better determine the kinds of learning experiences that students should have in the school's future guidance program. The quality and relevance of these learning experiences are concerns of all individuals involved in either program planning, development, or delivery.

The handbook is especially important for the career guidance program Planning Committee members and the group responsible for developing behavioral objectives for the total program. The self-instructional module allows those interested to learn the essential skills required for writing behavioral objectives at their own pace.

In addition, individual teachers may find the self-instructional module particularly useful for improving their skills in writing behavioral objectives. These skills could improve the effectiveness of continued efforts to upgrade their subject area lesson plans. The module could also be adapted for use in local in-service education programs to meet the needs of faculty, staff, and community members.

About This Handbook

This handbook attempts to place the capability of writing behavioral objectives in the hands of a greater number of individuals. By following the procedures and examples provided, program planners in rural settings can engage directly in the important task of defining expected learner outcomes based upon locally derived needs. The procedures in this handbook were developed in response to a felt need to provide rural educators with a practical handbook to facilitate the achievement of a guidance program based on behavioral objectives. The procedures recommended are easily implemented with the fiscal and human resources available.

SECTION I

BEHAVIORAL OBJECTIVES: DESCRIPTION AND USE

The development of behavioral objectives assumes that the goals and developmental goals have been established for the district's guidance program through the local needs assessment. Goals and developmental goals provide the general structure for the career guidance program. However, the attitudes, skills and knowledges that students need to acquire have to be stated in more specific, measurable terms, i.e., behavioral objectives. One or more behavioral objectives have to be written for each of the broader developmental goal statements before the career guidance program can be successfully developed and implemented.

Behavioral objectives are statements of what the student should be able to do. Each behavioral objective consists of four major parts. The four parts of the behavioral objectives are based on criteria that have been commonly accepted as necessary for developing measurable behavioral objectives. An easy way to remember the four required parts of behavioral objectives is by the initial letter—A, B, C, D. Writing behavioral objectives involves the identification and incorporation of the following criteria:

A Actor—the individual who will perform the behavior.

Generally, the *actors* in career guidance program behavioral objectives are students. However, all students in the rural school may not have the same needs. Therefore, the individual or group of individuals is clearly identified in each behavioral objective. The actor portion is italicized in the following example of the behavioral objective:

> Following a presentation of the steps of the decision-making process by the teacher, *the students in the career planning seminar* will correctly identify in writing the sequence of steps.

B Behavior—the task that the actor can be seen or heard performing.

The *behavior* portion of the behavioral objective defines in observable terms a single action that is to be demonstrated. The terms used to describe the behaviors must be clear and unambiguous. In the following behavioral objective, the behavior portion is italicized:

> After viewing a film on career choices, students *will list* at least three *career options of interest to them.*

C Condition—the characteristics of the situation within which the actor will demonstrate the behavior, e.g., materials, setting.

Conditions account for the following factors: where, when, and with what. The condition is used to further modify the objective. The conditions define the setting or point out the material or information given to the student for use in performing the task. One or more conditions may be included in each objective. The condition portion of the behavioral objective is italicized in the following example:

> *After reading Chapter 5 in the text*, students will compile in writing a list of at least five specific jobs within one professional field.

D Degree of Success—the criteria which define the successful completion of the task.

Degree of success indicators are an important part of behavioral objectives because they make evaluation of the behavior possible. They are the measures of successful task performance. The degree of success criteria are italicized in the following example:

> Given the necessary information about an institution of higher education, the student will prepare a budget *including the following expenses: tuition, fees, books, room and board, transportation, and entertainment.*

Following this example of a behavioral objective, the four components are listed.

> After reading the assigned chapter on career opportunities, the student will identify four occupational alternatives in the field of medicine.
>
> Actor—the student
>
> Behavior—will identify occupational alternatives
>
> Condition—after reading the assigned chapter on career opportunities
>
> Degree of Success—four, in the field of medicine

Behavioral objectives permit the development of well-defined learning activities and identifiable conditions of learning. They also provide for unambiguous evaluation. Clearly stated behavioral objectives provide the framework which allows students to experience learnings related to individual needs. They allow students to begin at the logical place to best advance their knowledge. There are many developmental skills and attitudes and much knowledge that must be learned by all students during their education.

Further, behavioral objectives may be written to include various types of skills. Bloom (1956) classifies objectives into three domains: cognitive domain (knowledge), affective domain (attitudes, feelings), and psychomotor domain (physical skills). The most important of these to a career guidance program are the cognitive and affective domains. Both of these need to receive attention during the behavioral objective development process.

The list of potential objectives for career development is probably unending. This number will be limited by focusing on the developmental goals that have been highly valued and prioritized for implementation in your school. The size of your school will probably be one factor that determines the number of developmental goals for which behavioral objectives will be derived at any given time.

The following section of this handbook will help make the task of writing behavioral objectives for your career guidance program an easier one.

SECTION II

PROCEDURES FOR THE DEVELOPMENT OF CAREER GUIDANCE PROGRAM BEHAVIORAL OBJECTIVES

The duties of the career guidance program Planning Committee should include the selection of a group responsible for behavioral objective development at the school building level and a leader for that group.

Selection and Responsibilities of the Behavioral Objective Group Leader

The identification of a leader for the task of developing behavioral objectives for the total career guidance program is critical to its success. The leader will facilitate the work of the group assigned the task of writing behavioral objectives. At different points in time, the leader may work with people on a one-to-one basis or in a small group context. Responsibilities of the leader will be varied. They may include providing in-service education for writing behavioral objectives, presenting career guidance ideas, serving as a sounding board, and providing an overall program perspective to behavioral objective group members. The leaders should be involved in the overall planning of the career guidance program and should be a member of or work closely with the career guidance program Planning Committee. In addition, the leader should:

- have a working knowledge of career development theory
- understand the importance and scope of a comprehensive career guidance program
- be aware of the various roles school staff could play in developing and implementing a career guidance program
- demonstrate leadership qualities
- be familiar with the process of writing behavioral objectives
- be a school faculty/staff member
- have in-service training capabilities

In considering potential leaders for the behavioral objectives group, the Planning Committee should not fail to look within its membership. It would, at times, be advantageous if the leader were also a member of the Planning Committee. This should not, however, be a requirement for selection to the position.

The program Planning Committee should take the following steps in selecting the leader for the behavioral objective group:

1. Identify individuals for the position of leader based on criteria stated above.

2. Rank the individuals in order of preference

3. Select the top-ranking named person to serve as leader

4. Orient the leader to the career guidance program

Creation of the Behavioral Objective Group

The behavioral objective group will function at the building level and will be responsible for coordinating the writing of behavioral objectives necessary for making career development concepts a part of the total curriculum. This responsibility may involve the actual writing of behavioral objectives for the prioritized developmental goals and/or reviewing behavioral objectives written by faculty/staff members in each of the subject-matter areas or curriculum support areas. Group concept is especially effective in the rural school because of the limited personnel resources available. In cooperation with the person selected to serve as leader of the behavioral objective group, the program Planning Committee will:

1. Identify potential group members, including

   a. teachers and other staff members (representing various subject-matter areas) who have expressed interest in improving the career guidance program in the school

   b. students who have expressed an interest in the career guidance program and who have exhibited the ability to think creatively and to write clearly

2. Select five to eight individuals representing teachers, staff, and students to serve as behavioral objective group members

Group Orientation and Coordination

When the members of the behavioral objectives group have been selected and have agreed to serve in the group, they will be ready for in-service education regarding the responsibilities of the group and their roles as group members. One of the initial responsibilities to be assumed by the behavioral objective group leader is to orient the members to the process of behavioral objective development. The leader will arrange for having all necessary materials available for use at the first meeting. The leader will also be responsible for the following tasks:

1. Arrange meeting time, date, and place

2. Notify group members

3. Discuss the importance of behavioral objectives to the career guidance program

4. Explain the responsibilities of the leader to

   a. Orient the task force

   b. Serve as liaison between the group and the planning committee

c. Coordinate the work of the group

d. Schedule assignments and record progress

e. Communicate progress to administrative staff

5. Explain the responsibilities of the behavioral objective group to

a. Write, review and revise behavioral objectives

b. Assure that the behavioral objectives are consistent with the developmental goals

c. Assure that an adequate number of behavioral objectives is written for each developmental goal

d. Work with other faculty/staff and students to obtain input for behavioral objective development especially regarding the conditions and degree of success expected

6. Distribute materials and encourage each member to complete the self-instructional module (Section III) by the next group meeting

7. Provide time for questions and possible development practice during each meeting

A successful first group meeting will result in motivated and interested group members who will prove more effective in their task performance than an uncommitted group.

Developing Behavioral Objectives

By the time the behavioral objective group has its second meeting, the members should have an understanding of the responsibility of the group and should have completed the self-instructional module which they were given at the first meeting. The group is now ready to begin the important and challenging task of developing behavioral objectives. The procedures outlined in this section will enable the members to derive behavioral objectives from the selected developmental goals of the career guidance program. There is no end to the list of behavioral objectives which could be appropriate for a school's career guidance program. However, it is the responsibility of this group to select those behavioral objectives which are appropriate to the school and through which the prioritized developmental goals can be achieved.

There are numerous techniques which may be used to identify content around which behavioral objectives may be developed. Brainstorming is one especially effective technique for the initial generation of ideas. It is used to produce as many ideas as possible in as short a time as possible. The following are guidelines for brainstorming:

- Set a time limit for each brainstorming session
- Generate ideas as quickly as possible; all ideas are acceptable
- Record suggested ideas on a chalkboard
- Do not take the time to discuss the presented suggestions

- Emphasize quantity rather than quality of ideas
- Encourage expansion of others' ideas

Following the steps given below, practice brainstorming to become familiar with this technique.

1. Select an item, e.g., a book, a flower pot, a bottle . . .
2. Think of alternative uses that such an object may have. (3 minutes) For example, a book may serve as a doorstop . . . a paperweight . . . seat raiser . . . flower press . . . a foot rest . . .
3. Complete the learning activity which follows for behavioral objective group members.

Learning Activity for Behavioral Objective Group Members

Assume that you as a staff member of the Green Valley Junior High School have conducted a career development needs assessment and arrived at the following developmental goal: The students will describe how people's value systems differ.

1. List all the student outcomes you can think of related to this developmental goal.
2. To help your thinking, consider what students of different ages can do.
3. Have the leader go over your outcomes and those of other members in your group to provide feedback.
4. Check your responses in light of the following considerations:
   a. Are the outcomes observable behaviors?
   b. Are the outcomes important to the fulfillment of the developmental goal?
   c. Do the verbs used denote action?
   d. Are outcomes subject to few interpretations?
      1) Do outcomes provide evidence that the learner has reached the goal?
      2) Is the behavior a significant one?
      3) Do the outcomes describe what the students will be able to do?

When you have completed the practice activities, follow the steps given below to brainstorm ideas related to the developmental goals of your career guidance program.

1. Select a developmental goal from those provided by the Planning Committee.
2. Write a heading on the chalkboard for each component of a behavioral objective (Actor–Behavior–Condition–Degree of Success) allowing space beneath each heading for more writing.

3. Identify the actors for whom behavioral objectives are to be written for this developmental goals. List them under the heading *actor.*

4. After you have listed all the possible actors, begin brainstorming for the behavior portion of the objective. Take into consideration the actor for whom the behavior is being written. Think about the knowledges, attitudes, and skills needed; and kinds of behaviors that will help demonstrate that needed knowledges, attitudes, and skills have been acquired.

   a. List the ideas on the board under the heading *behavior*

   b. Rank the listed behaviors in order of importance

   c. Delete any behaviors the group members agree are not important

   d. Combine similar behaviors into a single statement

5. Now that you have lists of possible actors and appropriate behaviors, you are ready to brainstorm conditions for the behaviors. Take into consideration the information and/or material the student needs to accomplish the behavior; and the setting in which the behavior will be demonstrated.

   a. List the ideas on the board under the heading *condition*

   b. Match each behavior with the most appropriate condition(s)

   c. Combine similar conditions into a single statement

6. Using the developmental goal, actor, behaviors, and conditions, brainstorm degree-of-success measures for each actor-behavior-condition combination.

   a. Write the degree-of-success measures on the board under the heading *degree of success*

   b. Match each degree-of-success measure with the most appropriate actor-behavior-condition cluster

The brainstorming segment of the session is concluded once all ideas for the four component parts are written on the chalkboard. It is now necessary to record these ideas for use in developing behavioral objectives.

Using Worksheet I (Appendix A), record the developmental goal for which the group has been brainstorming. Transfer the information from the chalkboard to the appropriate rows on the worksheet remembering that each row represents a component of a behavioral objective (Actor, Behavior, Condition, Degree of Success). The components which have been matched on the board should be matched on the worksheet. Then,

1. Submit the completed worksheets to the leader.

2. Repeat the brainstorming process until components of behavioral objectives have been developed for each of the developmental goals.

Writing Behavioral Objectives

Once ideas for the component parts of behavioral objectives have been recorded, the writing of objectives can begin.

1. The leader will distribute the completed worksheets (Worksheet I) among the behavioral objective group members so that each member will be writing objectives for one or more of the developmental goals.

2. Members should review the guidelines for writing behavioral objectives (Section III).

3. On Worksheet II (Appendix B) group members, individually or in small groups, will write objectives based on the ideas written on the worksheets (Worksheet I) which they have received.

    a. Behavioral objectives should be written as clearly as possible.

    b. Make certain the behavioral objectives support the achievement of the developmental goals.

4. Group members will exchange behavioral objectives with each other.

5. Members will review each other's behavioral objectives, making suggestions for possible revision.

6. Worksheet(s) should be returned to the original writer(s).

7. Make any necessary revisions on worksheets and turn them in to the coordinator.

8. Corrected behavioral objectives should be typed on Form 1 (Appendix C).

9. Enough copies of Form 1 should be duplicated to provide a copy to each group member prior to the review process.

Reviewing Behavioral Objectives

Each member of the behavioral objective group should be prepared to discuss the behavioral objectives on Form I. The members of the group will work as a team to review the behavioral objectives based on the following criteria:

1. The behavioral objective will be accepted as written if

    a. it is logically derived from the developmental goal

    b. it indicates behavior that is important for the student to achieve

    c. it is clear, measurable, and understandable

    d. it contains the four component parts (ABCD)

2. The behavioral objective will be revised if

   a. it is not logically derived from the goal

   b. it is not clear, measurable, or understandable

   c. it does not contain the four suggested component parts

3. The behavioral objectives will be rejected if it does not specify important outcomes

As the group reaches a decision about each behavioral objective, the leader will record the decision regarding each one. Any suggestions for revision will also be noted.

1. The behavioral objectives requiring revision will be assigned to individual members of the group for rewriting.

2. Rewritten behavioral objectives will be subject to the review process.

3. After all behavioral objectives have been written and reviewed, they will be submitted to the career guidance program Planning Committee for their review, reactions and/or approval.

Existing Behavioral Objectives

It may be desirable to consider ways of increasing the efficiency of the career guidance program planning process. While it may at times be necessary to develop original behavioral objectives, it is also possible that behavioral objectives which have been written elsewhere can be used for specific segments of the career guidance program being planned. Several catalogs of objectives have been produced nationally and may provide the staff with objectives which reflect the particular needs of your program in part or in full. For example, *Objectives for Career and Occupational Development* (NAEP, 1971) provides a source of career development objectives for students at three age levels—13, 17, and adult. It may also be helpful to examine materials developed for career guidance programs in other schools to identify existing objectives. For assistance in identifying sources of existing objectives see the chapter on developing goals and objectives in the *Handbook of Resources* which is a part of this package.

Identifying existing objectives may be a shortcut to developing behavioral objectives at the building level. However, there are cautions which must be observed. An objective is useful only if it relates to your program's developmental goals. Potentially useful existing objectives should be carefully examined to make certain they contain the four necessary ingredients of a complete behavioral objective. With these cautions in mind, the behavioral objectives group may find it possible to adapt existing objectives for use in the career guidance program. Whether you adapt existing objectives or write your own, the process of developing behavioral objectives is important to the success of a career guidance program. More specific instructions for writing behavioral objectives are provided in Section III of this handbook.

SECTION III

SELF-INSTRUCTIONAL MANUAL FOR WRITING BEHAVIORAL OBJECTIVES*

I. Introduction

Behavioral objectives are an important part of the career development program your school is developing. They state explicitly what behavior is expected of students, faculty and staff, administrators, and whoever else is involved in career development. Behavioral objectives also provide a means for communicating clearly what results administrators, faculty and staff, parents, and students should expect of a career development program. In addition, they serve as the criteria for determining the effectiveness of a career development program.

This manual provides information and exercises on writing behavioral objectives and on deriving them from developmental goals. These tasks are not easy. Behavioral objectives that are both worthwhile to achieve and specific enough to measure are often difficult to construct. Creative and analytic skills will be needed to derive behavioral objectives from developmental goals. But, in terms of your career development program, the results of writing meaningful and measurable behavioral objectives should be well worth the effort.

After completing this manual, you should be able to do the following:

A. Given four behavioral objectives, you will identify the four parts of behavioral objectives without error.

B. Given a list of non-behavioral objectives, you will describe the deficiency in each objective without errors.

C. Given a list of behaviors, you will select behaviors that are examples of cognitive, affective, or psychomotor behaviors.

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*A rural guidance program abridged edition of the Career Planning Support System , *Manual for Writing Behavioral Objectives* - Field Test Version (1976), Columbus: The Ohio State University, The Center for Vocational Education.

You may already be quite familiar with the derivation of behavioral objectives. If so, you are nevertheless encouraged to take the few minutes necessary to go through this manual to refresh your knowledge. Here are some things you should know prior to beginning this manual.

A. This is a self-instructional manual. You may work at your own pace to complete it.

B. Many of the steps in this manual are question-and-answer steps. It will be easier to concentrate on one step at a time if you use a cover sheet to cover the answers beneath the step you are reading. Write your answer to each question before you uncover the answer.

C. You will need the following materials:

   1. Pencils
   2. A cover sheet or mask card (large index card)
   3. Scratch paper on which to record your answers

D. Write all your answers to test and practice questions on scratch paper. Do not write in this manual because other people will be using it too.

E. Follow the instructions. When you get to the bottom of a page, continue to the next page unless you are instructed to do otherwise.

NOTE: Looking ahead or leaving out steps will probably make it more difficult for you to learn the skills that you need.

Begin the self-instructional sections of this manual with Pretest, Step 1 on the next page.

II. Parts of Behavioral Objectives

Pretest

Step 1. In each of the following four statements, name the part that has been italicized. Write the name of the *italicized* part (i.e., actor, behavior, condition, or degree of success) on scratch paper. Do not write in this manual.

A. *Given a list of three occupations and the Occupational Outlook Handbook,* the student will identify the age, training, and work environment for each of the occupations.

B. Given two job applications, the *student* will complete the applications without error.

C. Given a list of three occupations, the student *will list the post-high school educational preparation needed and where he/she can secure it* for at least two occupations. Accuracy will be judged by a teacher or counselor.

D. Given a list of occupations, the student will list *at least five* worker traits (e.g., aptitudes, interests, temperaments, educational attainment, earnings, etc.) related to success in one occupation.

Step 2. Which of the following five statements is/are behavioral objective(s)? If a statement is *not* a behavioral objective, name the missing part. Do all your writing on scratch paper.

Statement

A. Given a series of five occupational clusters, students will list from memory two occupations that are in each cluster.

B. Given a list of references, students will know the appropriate sources for finding job openings.

C. Given job application forms, the students will fill them out correctly.

D. After selecting two occupations of interest, students will list school courses and community experiences that relate to the occupations. The list will be reviewed by a counselor.

E. Given a list of ten sources, students will identify those sources in which salary/wage information can be found.

Answers for Pretest

Step 3. Compare your answers for the questions in Steps 1 and 2 with those given below.

ANSWER: Step 1—A. Condition B. Actor C. Behavior D. Degree of Success

Step 2—A. Yes B. No—behavior C. Yes D. Yes
E. No—degree of success

A. If all your answers were correct, go to Chapter III on page 37.

B. If you missed no more than *one* question in either Step 1 or Step 2, skim the remainder of this chapter starting at Step 4 on the next page. Then answer the questions in the post-test at the end of the chapter.

C. If you missed more than *one* question in Steps 1 and 2, continue with Step 4 on the next page.

Step 4. A behavioral objective is a statement that describes what a person should *be able to do* after completing a learning experience. Good behavioral objectives give the person a *clear understanding* of what is expected of him/her. In other words, they are a means of *communicating* very important information.

Step 5. Behavioral objectives contain four parts or portions. The terms you will need to know begin with the first four letters of the alphabet, "ABCD."

A.	*Actor(s)*	The group of students (or adults) who will perform a desired task
B.	*Behavior*	A task that the actor can be seen or heard performing
C.	*Condition(s)*	What the actor has to work with to perform the desired task; can be materials or a setting
D.	*Degree of Success*	The criterion that can be used to determine whether a student has successfully mastered the behavior prescribed by the behavioral objective

Actors

Step 6. A behavioral objective specifies what specific persons or "actors" will be able to do after completing a learning experience. The *actor*, the person who will perform a given task, should usually be a student. It is sometimes helpful to write behavioral objectives for different groups of students. For instance, there are groups of students within this school with different future plans. There are students with no set plan for the future, students who plan to get a job right after high school, students who plan to obtain occupational training, students who plan to attend college, and students who plan to stay home.

Step 7. In some instances, it may be desirable to specify a specific grade level for students. The grade level specified for a student should only indicate that the behavioral objective should be achieved by the time students are in that grade. It should *not* mean that a student in a lower grade level cannot or should not achieve the objective.

NOTE: For the following steps, use a cover sheet to cover the answers beneath the step you are reading. Move your cover sheet down the page after you read and write your answer to each question. Do not write directly in this manual.

Step 8. Who are usually the actors in behavioral objectives?

A. Counselors and teachers

B. Parents

C. Students

ANSWER: C is correct. Objectives are usually stated in terms of *student* behavior(s).

Step 9. Identify the phrase describing the actors in the following behavioral objective:

Students who plan to attend a vocational school will volunteer for a part-time job in their area of interest from a list of thirty available jobs.

ANSWER: You should have identified "Students who plan to attend a vocational school" because they are the specific group of actors to whom this objective applies.

Step 10. Actors can also be adults. Behavioral objectives can be written for students as well as a variety of adult actors, such as teachers, counselors, parents, local employers who are participating in the work-study or other school programs, or members of the community in business and industry. These behavioral objectives describe the competencies adults need to better help students prepare for further education and careers.

Step 11. Find the phrase describing the actors in the following behavioral objective:

> Given a list of five community job placement agencies, the teacher will list the special services and features of each agency. The special services and features will include such things as their functions, their customers, and their success rate in placement.

ANSWER: "The teacher" is the correct answer.

Step 12. The objective in Step 11 could be rewritten so that it is a behavioral objective with students as the actors instead of teachers and counselors. For example: Given a list of five community job placement agencies, the student will personally contact and list the special services and features of those agencies to the satisfaction of his/her classmates. It is important to consider all objectives written for adult actors in light of their ultimate impact on students.

Step 13. Find the phrase describing the actors in the following objective:

> Given information about five state-supported colleges or universities, parents of college-bound seniors will compare them in terms of their advantages and disadvantages.

ANSWER: You should have located "parents of college-bound seniors." They are the specific group of actors that will perform the task described in this behavioral objective.

Behavior

Step 14. The behavior portion of a behavioral objective states what the actors should be able to do. The behavior portion describes an "observable" action. An observable action can be seen, heard, or felt. The key words to look for are verbs open to few interpretations rather than many. This difference is illustrated in Table 1.*

Table 1

Desirable and Undesirable Action Words

Undesirable (Words open to "many" interpretations)	Desirable (Words open to "fewer" interpretations)
To know	To recall
To understand	To illustrate
To really understand	To identify
To appreciate	To name
To fully appreciate	To demonstrate
To grasp the significance of	To construct
To enjoy	To change
To believe	To compare
To trust	To order

Step 15. The list in Table 1 can be expanded to include more words on both sides. When writing your own behavioral objectives, use words open to "fewer" interpretations and test to see if your objective is written in behavioral terms by asking the question, "Can I *see* or *hear* the actor performing this task?" If the answer is no, then the objective is not written in behavioral terms.

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*Based on Robert F. Mager, *Preparing Instructional Objectives* (Palo Alto, California: Feron Publishers, 1962).

Step 16. What should the behavior portion of a behavioral objective specify?

A. What the actor will be able to do

B. What the actor will understand

ANSWER: A is the correct answer. The behavior portion states what the actor is able to do to achieve the objective.

Step 17. Which of the following phrases describes an observable activity?

A. To appreciate

B. To describe

C. To understand fully

ANSWER: B is the best answer. The phrase "to describe" illustrates an action that can be heard or seen. You cannot see or hear a student "appreciating" or even "understanding fully." If you did not answer this question correctly, go back to Step 14 and reread the section on behavior.

Step 18. In the example below, the behavior portion of the statement is italicized:

Given their scores on a vocational interest inventory, students *will choose two occupations in which they are interested*. A counselor will judge whether the choices are suitable.

The italicized phrase describes what it is desired that the student *do*.

Step 19. Find the behavior portion of the following behavioral objective.

Given a variety of pamphlets and bulletins from colleges and vocational-technical schools, students will contrast the time and cost of education for at least three careers.

ANSWER: "Will contrast the time and cost of education" is the correct answer.

Step 20. Who is the actor in the behavioral objective in Step 19?

ANSWER: "Students" are the actors in that example.

Step 21. Identify the behavioral portion and the actor(s) for the objectives below.

> Given three different job application forms, students will complete each form without error.

ANSWER: "Will complete each form" is the behavior that is performed by "students," who are the actors.

Step 22. It should be kept in mind that the behavior portion specifies knowledge, skills, or attitudes.

A behavior should not specify what an individual is doing to or for another individual.

An example of behavior stated in an undesirable way is:

> In a communications course, the teacher will assist the student to complete job applications.

This statement describes a "process" in which teachers participate rather than the knowledge, skills, and/or attitudes that teachers should have in order to assist students.

Step 23. Is the following statement a behavioral objective?

The counselor will help students identify career information sources.

A. Yes

B. No

ANSWER: No. The statement is not truly a behavioral objective since it does not explicitly describe what a counselor needs to know, do, or feel. Neither does it describe the knowledge, skills, or attitudes that a student should have. The following two statements are behavioral objectives.

The counselor will describe at least three sources from which students can acquire information on careers.

The student will list three sources of career information available in the school.

Step 24. Is the following statement a behavioral objective?

The school will provide a job placement service for students.

ANSWER: No. The statement describes a method by which students can identify jobs and acquire employment. It does *not* describe the knowledge, skills, or attitudes needed by students to identify jobs and acquire employment. In other words, the statement describes a method that students can use to acquire jobs and does not indicate that they do in fact acquire employment.

Conditions

Step 25. The *conditions* portion of a behavioral objective describes the conditions under which the desired behavior will be performed. Conditions describe either the *setting* of the actor or state what *materials or information* will be given to the actor to perform the desired task. The conditions statement is usually placed at the beginning of a behavioral objective. A condition is used to clarify the objective.

Step 26. The example below contains two behavioral objectives, including conditions. The conditions are italicized in each objective. In the first objective, the condition is materials. In the second objective, the condition is a setting.

A. *Given a list of employers*, the faculty member will describe the procedures for placing students in part-time jobs.

B. *In a simulated job interview*, students will demonstrate skill in interviewing to the satisfaction of the teacher. The teacher will have a checklist as a basis for determining student performance.

Step 27. What does the conditions portion of a behavioral objective describe?

A. The task the actor is to perform

B. The materials that will be given to the actor

ANSWER: B is the correct answer. The condition portion may also describe the setting in which the behavior will occur or prerequisite experience of the actor.

Step 28. Which of the following statements is a condition?

A. Using the *Dictionary of Occupational Titles*

B. Will differentiate between professional and paraprofessional jobs in the field of medicine

---

ANSWER: A is the correct answer. This statement tells us what materials an actor will be *given* when performing the required task. If you selected B, you selected a behavior pattern. (Remember: the behavior portion is a phrase with a verb describing what the actor should *do*.)

Step 29. Does the following objective have a condition portion?

Counselors and teachers will list and describe all the social/personal counseling services available in the community.

A. Yes

B. No

ANSWER: B is correct. There is no condition given in this objective. Conditions are optional if the setting, prerequisite skills of the actors, or materials given to the actors to perform the task do not need to be clarified. A condition that could have been stated is: "After conducting a telephone interview with community social agencies . . ."

Step 30. Point out the condition portion, if any, in this objective.

After reading a required paper on career opportunities and interviewing five individuals in different occupations, students will describe at least six key factors in the selection of a career.

ANSWER: "After reading a required paper on career opportunities and interviewing five individuals in different occupations" is the correct answer. This objective has two conditions: (1) reading the paper and (2) interviewing workers. Condition portions often state more than one condition.

Degree of Success

Step 31. The remaining portion of a behavioral objective is the *degree of success*. The degree of success portion of a behavioral objective describes how the actor will be evaluated or how well and by when he must perform a given task *to be successful*. Key words to look for to identify the degree of success portion are descriptive adjectives or adverbs and numbers. The degree of success portion often appears at the end of a behavioral objective.

Step 32. What should the degree of success portion of a behavioral objective describe?

A. How the actor will be evaluated

B. What will be given to the actor

ANSWER: A is the correct answer. The degree of success portion of an objective describes how to measure or evaluate an actor's performance or what is required of the actor for success at a given task.

Step 33. The first way to specify the degree of success is by describing the *minimum degree of success.* The minimum, or least, the actor must do and still be successful may be specified by stating the minimum *number (such as nine out of ten), percentage (such 90%), proportion (such as 3/4),* of correct responses needed to be successful.

Step 34. Which of the following is/are an example of degree of success?

A. Nine out of ten correctly

B. Students will contrast

C. Using the telephone directory

ANSWER: A is the correct answer. This answer specifies the minimum number of correct responses. B is a behavior statement and C is a condition.

Step 35. The degree of success portions are italicized in the following examples.

Minimum number	1.	Given the names of fifteen occupations, students will correctly describe *at least ten* of the occupations.
Minimum percentage	2.	Given a standardized career maturity inventory, students in grade twelve will score *at or above the 50th percentile* for their grade level.
Minimum portion	3.	Given a list of sources for obtaining occupational information, students will obtain information from *at least one-third* of these sources during a six-week period.

When numbers are used to specify degree of success, they should not be set arbitrarily. There should always be a logical rationale for stating the minimum number of items that must be included.

Step 36. What may the degree of success portion of a behavioral objective specify?

A. The portion of correct responses required for success

B. The task the actor is to perform

C. The minimum percentage of correct responses

ANSWER: Both A and C are correct. If you chose either or both of these, you are right. Choice B is a description of the behavior portion.

Step 37. Identify the degree of success in the following objective.

After listing eight medical careers, students will list the training requirements for at least five correctly.

ANSWER: "At least five correctly" is the correct answer.

Step 38. A second way to specify degree of success is *to state those items that must be included in the response in order for the response to be correct.* Then, no matter how else or how much the actors respond, they cannot be successful unless they include the required items. The degree of success portion is italicized in the example below.

Given a variety of sources for obtaining career information, students will prepare a personal information file. *Each student's file must contain the following:*

A. *A sample job placement form*

B. *Information from local employment agencies about the local availability of jobs*

C. *Information from the U.S. Department of Labor about the nationwide availability of jobs*

D. *Career literature, describing at least three occupations within the student's chosen career cluster*

E. *A self-report to be updated monthly about changing personal career goals*

F. *Personal results on a standardized interest survey*

Step 39. Which of the following is a way of specifying the degree of success.

A. Specify the actors

B. List required items

C. State the conditions

ANSWER: B is the correct answer. By listing the items that are required for an answer to be correct or an activity to be completed, it can be determined if the objective has been achieved.

Step 40. Which of the following is *not* an example of a degree of success?

A. Using the want ads section

B. By listing three resource books

C. Without error

ANSWER: A is the correct answer. It specifies a condition and not a minimum standard for success as in C or the items that must be included for the response to be correct as in B.

Step 41. The third way to *specify the degree of success is by setting time limits*. How well a student must do to be successful may be stated, in some cases, by setting a time limit. For instance, we may ask a student to "Type a 200-word passage *within three minutes*." This objective measures the time it takes a student to accomplish this task because in typing, speed is important. Time limits can also be set to measure duration. For instance, "Students will hold a part-time job for *at least three months*."

Step 42. Which of the following is/are example(s) of a degree of success portion for a behavioral objective?

A. Three out of five

B. In ten minutes

C. Sixty percent correct

ANSWER: A, B, and C are all correct. A is a *minimum number* that would be acceptable, B is a *time limit*, and C is a *percentage*. All of these are ways of specifying degree of success.

Step 43. The fourth way *to specify the degree of success is by indicating the person or persons who will judge or evaluate the performance as successful*. Some of the most common words and phrases that are used in behavioral objectives to judge student success are listed in Table 2, below.

Table 2

To be	by
reviewed	a counselor
judged	a teacher
graded	an employer
rated	classmates
evaluated	parents
checked for accuracy	self
checked for completeness	

Step 44. The degree of success portions are italicized in the following example.

> Given the requirement that each student complete a successful job before graduating, students will participate *in at least one* job experience and *will be evaluated for the "successfulness" of their experience by their employer, their counselor or teacher, and themselves.*

Step 45. Find the degree of success portion for the following behavioral objective.

> College-bound seniors will explain their reasons for selecting the colleges they have chosen to attend. A counselor will assess the soundness of their reasons.

ANSWER: "A counselor will assess the soundness of their reasons" is the correct answer. The counselors will determine if the responses meet intended performance levels.

Step 46. The fifth way to *specify the degree of success is by using a descriptive word or phrase that sets a standard for success*. Some of the most common words and phrases that are used in behavioral objectives to set standards for success are listed in Table 3, below.

Table 3

Words	*Phrases*
Correctly	Without error
Accurately	Error-free
Successfully	That meets predetermined standards
Adequately	That meets established criteria
All	At an acceptable performance level
Completely	
Exactly	

Step 47. The degree of success portion is italicized in the following example.

> Given instruction from a counselor or teacher, students will make a career information list *that meets predetermined standards.*

Step 48. The sixth way to *specify the degree of success is by stating the grade level at which point the student should achieve the behavior.* In other words, the student should have or achieve a certain objective by the end of a certain grade level. It should *not* mean that a student in a lower grade level cannot or should not achieve the objective. Furthermore, the specification of a grade level almost always appears along with another degree of success, such as, "without error," "reviewed by the teacher," or "eight out of ten."

Step 49. The degree of success portion is italicized in the following behavioral objective.

> Students will list five commonly held negative attitudes about women pursuing careers *to the satisfaction of his/her classmates by the end of the junior year.*

Step 50. List three of the six ways of specifying degree of success.

ANSWER: You should have listed any three of these six things:

A. State a minimum number, percentage, or proportion of correct responses.
B. State items that must be included for the response to be acceptable.
C. Set a time limit.
D. Indicate the persor. who will judge whether the performance is successful.
E. Use descriptive words or phrases.
F. State the grade level by which a student should achieve the behavior.

Step 51. Check your understanding of this chapter by completing the post-test on the next page.

Post-test

Step 52. Write the name of the italicized parts of each of the following objectives on scratch paper. Do not write in this manual.

A. Given a role-playing situation, the student *will interview for a position*. Adequacy of the demonstration of social and communicative skills will be judged by peers.

B. Given four job announcements, the student will *outline the procedures that should be followed in applying for the position* without error.

C. The *student* will prepare a personal resume, including at least the following: personal data, educational data, employment data, and references.

D. *Given selected information from his/her cumulative records*, the student will discuss (or write) the effects that his/her perceived accomplishments have had on his occupational aspirations. A counselor will discuss the realism of the perceptions with the student.

E. Given a university undergraduate catalogue and a vocational school catalogue and an appropriate program in each, the teacher will outline the procedures for applying to each of the instructions. The procedures should include the *preparation of all necessary materials specified in the catalogues and all necessary addresses.*

Step 53. Which of the following statements is/are behavioral objective(s)? If a statement is *not* a behavioral objective, state why.

Statement

A. Students will know how to operate a super-8 mm motion picture projector to the satisfaction of the instructional technologist.

B. Given data obtained from the U.S. Department of Labor and a list of five occupations, rank the occupations, according to the nationwide availability of positions without error.

C. Given three occupations and the *Occupational Outlook Handbook*, the student will correctly list the prerequisite education for initial entry into each of the occupations.

D. Given information of aptitudes, interests, and prior work experience, counselors will assist twelfth grade students with making career decisions by the third quarter.

E. Students will identify five characteristics necessary for a successful job interview to the satisfaction of the teacher. Characteristics will include such things as timelines, dress, attitude, preparation, and communication skills.

Answers for the Post-test

Step 54. Compare your answers to the post-test with those below:

ANSWERS: Step 52– A. Behavior B. Behavior C. Actor D. Condition
E. Degree of success

Step 53– A. No, because the behavior (know how to operate . . .) is neither observable nor measurable
B. No, because an actor is not specified
C. Yes
D. No, because the counselor is doing something to or for a student. The behavior as stated is a "process." To be a behavioral objective, the statement should have specified what counselors should know or be able to do or feel in measurable and observable terms.
E. Yes

A. If you missed no more than one of the post-test questions, you have successfully completed this portion of the module. Proceed to Chapter III that begins on the next page.

B. If you missed more than one question, review areas of this chapter that were difficult for you, then proceed to Chapter III and begin with the pretest on the next page.

III. Types of Behaviors

Pretest

Step 1. Classify *each* of the following types of behaviors as cognitive, affective, or psychomotor. Do not mark in this manual.

A. Analyzes a problem
B. Appreciates music
C. Improves penmanship
D. Obeys a rule
E. Summarizes a report
F. Types a letter
G. Understands a concept

Answers for the Pretest

Step 2. Compare your answers to the question in Step 1 with the following key:

ANSWERS: Cognitive behaviors—A,E,G.
Affective behaviors—B,D.
Psychomotor behaviors—C,F.

A. If you classified *incorrectly* more than two behaviors, you should continue this chapter at Step 3 on the next page.

B. If you classified *incorrectly* one or two of the behaviors, you may want to skim the remainder of this chapter and complete the *post-test* at the end of the chapter.

C. If you classified *correctly* all of the behaviors, you do not have to complete this section of the module.

Step 3. You should now understand what behavioral objectives are and that behavioral objectives have four parts: actor, behavior, condition, and degree of success. This chapter takes a closer look at the behavioral portion of objectives.

Step 4. For the sake of discussion, behavior can be classified into three "domains"*: (A) *cognitive*, or thinking, (B) *affective*, or feeling, and (C) *psychomotor*, or physical skill areas.

Step 5. Frequently, behaviors considered when writing objectives are restricted to the cognitive area. However, it is very important that attention be paid to the affective areas of behavior as well. It is important that students remember information and develop skills and abilities, but it is equally important that students develop interests, attitudes, appreciations, and values about career development. People probably retain more information or skills over a longer period of time in areas of study that they value and enjoy. The distinction between cognitive and affective behaviors will be explored more fully so that both areas will receive attention when selecting behaviors for objectives in your career guidance program.

Cognitive Domain

Step 6. The cognitive domain involves such behaviors as thinking, knowing, and problem-solving. This area is concerned with the ability to retain knowledge, understand principles and concepts, apply information or skills, and evaluate information. Examples of cognitive behaviors are:

A. List types of information needed for career decisions.

B. Describe a process used in career decision-making.

C. Apply a decision-making process to career choice.

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*B. S. Bloom, ed., *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I. Congitive Domain* (New York: McKay, 1956).

D. R. Krathwohl, B. S. Bloom, and B. B. Masia, *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 2. Affective Domain* (New York: McKay, 1964).

Affective Domain

Step 7. The affective area of behavior involves attitudes, interests, values, social adjustment, and the development of appreciation. This area is concerned with specifying behaviors that will reflect the students' feelings toward the material they are studying or the willingness to do something. Do they consider a particular topic under study to be important to them as a person? When they have completed a course, do they feel their time has been well-spent? What in their behavior tells us that they value a particular experience, idea, or course of action?

Some examples of affective behavior in career guidance are

A. Shares information that she/he has acquired about selecting a career with parents, friends, teachers, etc.
B. Suggests an acquaintance who could serve as a source of information on careers
C. Voluntarily seeks out books on careers in the library
D. Elects to take a follow-up course in career development
E. Persuades friends to become involved in career guidance activities

Step 8. It may be necessary to specify a variety of affective behaviors for any given goal so that students will not be locked into one way of expressing their interests, values, and feelings. For example, if a stated goal was "Students will be interested in career choice and planning," any of the examples of behavior given in Step 7 could be a way of expressing this interest.

Psychomotor Domain

Step 9. Behaviors in the psychomotor area emphasize physical skill. They include gross body movements, fine motor movements, speech behaviors, and nonverbal communication behaviors, such as gestures and body movements. The behaviors in this area may not be as important to your career development program as the behaviors in the cognitive and affective area. You will find that the majority of your behavioral objectives will emphasize cognitive and affective behaviors.

Less and More Complex Behaviors

Step 10. Behavioral objectives, even if written accurately, may not necessarily be "good" objectives. Objectives that describe simple or basic behaviors, such as the knowing and recalling of facts or the showing of interest in an object, are usually easier to write. Basic behaviors may also be important prerequisites to the achievement of program goals, but a set of objectives that only specifies simple behaviors may only skim the surface of a problem. You may, therefore, need to consider more complex behaviors, such as the comparing and combining of objects and the accepting of one's own strengths and weaknesses. It may be more difficult to specify complex behaviors in observable and measurable terms, but the effort can result in important benefits.

Step 11. As an example, a goal for a career guidance program may be as follows:

> Students will be able to select a college or university to attend after graduation.

In order for students to select a college, they may need to be able to do the following:

> Given a catalogue for a state university, an out-of-state public university, and a private college, the student will list the tuition, living expenses, location, and programs for each.
>
> The student will show awareness of the need for knowing about a variety of colleges before selecting any to attend, as indicated by voluntarily looking at two or more catalogues.
>
> The student will describe the social and cultural activities available at the state university, an out-of-state university, and a private college.

The above objectives describe relatively less complex behaviors. However, students may need to achieve more complex behaviors in order to achieve the goal, such as the following:

> The student will compare the cost for attending three different universities or college for four years with his/her ability to finance a college education.
>
> Given a major area of study, the student will summarize information on the quality of the program offered by three universities in that major area, using such indicators as number of courses offered in the program, number of students in the program, and number of faculty.
>
> Given the name of one university, the student will compare the social and cultural offerings of the university with his/her own values.

Step 12. The Appendix contains a list of sample behaviors in the cognitive and affective domains that may be useful when deriving behavioral objectives. Within each domain, the sample behaviors are grouped by levels of complexity—from the less complex to the more complex behaviors. By themselves, many of the terms are not observable or measurable behaviors and must be combined with other terms to become so.

Step 13. Check your understanding of this chapter by completing the post-test on the next page.

Post-test

Step 14. Classify each of the following types of behaviors as cognitive, affective, or psychomotor.

A. Accepts responsibility
B. Compares methods
C. Describes a process
D. Drives a tractor
E. Plans a course of action
F. Shows interest in
G. Turns an object

Answers for the Post-test

Step 15. Compare your answers to the question in Step 14 with the following key:

ANSWERS: Cognitive behaviors—B, C, E.
Affective behaviors—A,F.
Psychomotor behaviors—D,G.

A. If you classified *incorrectly* more than two behaviors, you may want to review this chapter.

B. If you classified *incorrectly* two or fewer behaviors, you have successfully completed this module. Congratulations!

APPENDIX

Example Behaviors for Objectives*

Cognitive Domain

Level I Knowledge (Emphasis is on recall. Lowest level of complexity.)	choose define complete recognize name list select	identify indicate label match locate reproduce
Level II Comprehension (Emphasis is on showing understanding.)	translate transform give in own words give examples prepare represent change reorder describe express convert classify	interpret rearrange differentiate** distinguish make draw explain paraphrase

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*The examples were compiled with the help of these sources:

B. S. Bloom, *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain* (New York: David McKay Company, Inc., 1956).

D. R. Krathwohl, B. S. Bloom, and B. B. Masia, *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook II: Affective Domain* (New York: David McKay Company, Inc., 1964).

Norman E. Gronlund, *Stating Behavioral Objectives for Classroom Instruction* (London: Collier-Macmillan Limited, 1970).

**Duplication of action words or behavior among levels is not uncommon. The *intent* of the objective and what is to be measured determines the level in which the behavior falls.

Level III Application (Emphasis is on showing use or application.)	apply make demonstrate discuss use keep records perform relate develop transfer classify discover relate show	compute differentiate** find collect information plan prepare solve generalize choose employ restructure change manipulate operate
Level IV Analysis (Emphasis is on perceiving relationship of the parts and breakdown of the parts.)	analyze determine form generalizations deduce make inferences distinguish discriminate categorize contrast detect organize outline separate	debate differentiate** draw conclusions organize identify recognize deduce compare break down
Level V Synthesis (Emphasis is on putting together elements or parts.)	combine design produce relate transmit modify rearrange generate combine devise organize	develop write (original) originate document summarize plan compose synthesize
Level VI Evaluation (Emphasis is on making judgments. The level of greatest complexity.)	evaluate interpret support argue assess consider compare appraise conclude	justify relate judge validate decide contrast

Affective Domain

Level I Receiving (Emphasis is on willingness to receive or to attend to stimulus. The lowest level of complexity.)	shows awareness of the importance of listens attentively shows sensitivity to accepts differences of attends closely to
Level II Responding (Emphasis is on interest in and satisfaction with things.)	completes assignment obeys rules participates in discussion completes volunteers for tasks shows interest in enjoys helping others
Level III Valuing (Emphasis is on beliefs, attitudes, values, and ideas.)	demonstrates belief in appreciates the role of shows concern for demonstrates problem-solving attitude demonstrates commitment to
Level IV Organizing (Emphasis is or organizing, interrelationships, and weighing values.)	recognizes the need for recognizes the role of accepts responsibility for understands and accepts formulates a plan
Level V Characterization by a Value or Value Complex (Emphasis is on internalized, integrated, and internally consistent value system. The highest level of complexity.)	displays demonstrates self-reliance in practices cooperation in uses objective approach in problem solving demonstrate industry, punctuality, and self-discipline maintains

APPENDIX A
Worksheet I

Developmental Goal: _____

_____

Actor:

Behavior:

Conditions:

Degree of Success:

APPENDIX B
Worksheet II

Developmental Goal: _____

_____

Actor:

Behavior:

Conditions:

Degree of Success:

APPENDIX C
Form I

1. **Developmental Goal:** _____

_____

_____

1.1 Behavioral Objective

1.2

1.3

1.4

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CREDIBILITY REVIEW PANEL MEMBERS

This rural school career guidance project represents an effort to build upon the unique strengths of the rural setting and to overcome the problems faced by educators, parents, employers, and students in rural schools and communities. The use of local credibility review panels was designed to provide an assessment of the relevance and feasibility of the ruralized processes and products generated as a result of this project. Individuals representing educators, students, parents, and employers were organized into fifteen review teams across the states of Michigan, Wisconsin, and Ohio. The following individuals gave freely of their time and competencies over a year's period to increase the effectiveness of our efforts.

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